REMARKS

Claims 1, 22 and 39 have been amended. Claims 7, 8, 23, 30, 31 and 43 have been cancelled. Claims 53-71 have been added. Therefore claims 1-6, 9-29, 32-41 and 44-71 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 102(b) Rejection:

The Office Action rejected claims 1-53 under 35 U.S.C. § 102(b) as being anticipated by Flaig, et al. (U.S. Patent 5,105,424) (hereinafter "Flaig"). Applicant respectfully traverses this rejection in light of the following remarks.

Regarding claim 1, Flaig does not teach identifying a route in the interconnection fabric for sending the message from a sending node to a destination node, wherein said identifying a route comprises selecting the routing directive from a routing table comprising a plurality of independent routes from the sending node to the destination node. In contrast, Flaig teaches a deadlock-free routing method of sending packets on a *fixed route* on a mesh of first X and then Y (Flaig column 6, lines 24-28 and column 7, lines 19-40). Flaig even refers to this as a "design criteria must" (column 6, line 25). In other words, Flaig teaches the use of only a single, fixed route between any two nodes. This is very different from selecting a routing directive from a routing table comprising a plurality of independent routes from the sending node to the destination node. Flaig does not anticipate claim 1 and thus, the rejection of claim 1 is not supported by the prior art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 1 apply to claims 22 and 39 as well.

With regard to added claims 53, 56 and 59, Flaig does not anticipate identifying a return route from the destination node to the sending node and encoding a return routing directive in the message, wherein the return routing directive describes the return route and comprises at least one segment, wherein each segment comprises a direction

component and a distance component. The Examiner has cited (regarding claim 10) column 4, lines 2-5 and column 9, lines 57-66 of Flaig. However, these passages describe acknowledgment packets automatically sent and received between nodes on the same channels to announce the availability of buffers. In other words, Flaig is teaching that neighboring nodes on the interconnect fabric use acknowledgement packets to prevent buffer overruns. This cited passage does not mention anything about a return route directive describing a return route from the destination node to the sending node. Nowhere does flag teach encoding a return route directive in a message, wherein the return routing directive describes the return route and comprises at least one segment, wherein each segment comprises a direction component and a distance component.

Regarding added claims 63, 66 and 68, Flaig does not anticipate incrementally encoding a return routing directive in the message, wherein the return routing directive describes a return route from the destination node to the sending node and comprises at least one segment, and wherein each segment comprises a direction component and a distance component. The Examiner has cited (regarding claim 13) column 11, lines 21 – 26 and column 8, lines 9-17 of Flaig. Neither cited passage mentions anything about incrementally encoding a return routing directive in the message. The first cited passage describes how the CPU writes the address of the destination node to memory mapped location in the channel, encodes the header, and sends the message. At the second cited passage, Flaig discloses how his route-encoding scheme allows the use of small "flits" to represent large offsets while allowing routing decisions to be made using the first two flits of the message header. However, Flaig does not teach anything about incrementally encoding a return routing directive in the message nor about a return routing directive describing a return route from the destination node to the sending node.

With respect to added claim 71, Flaig does not teach a storage system comprising a plurality of nodes wherein different ones of said plurality of nodes perform different functions in the storage system, wherein each one of a first portion of said plurality of nodes are storage nodes each comprising at least one mass storage device, and wherein each one of a second portion of said plurality of nodes is a host interface node configured

to provide an interface for the storage system to a host computer. The Examiner notes that Flaig discloses a plurality of nodes coupled to an interconnection fabric. However, Flaig is directed to a multicomputer in which each node is connected in a symmetrical and uniform way (Flaig, column 4, lines 36-63). Each node in the system is identical and includes a bus means for interconnecting the components, ROM, RAM, a CPU, and packet interface means. The application of an interconnection fabric to a plurality of identical nodes is not at all suggestive of applying an interconnection fabric to different functional components within a single storage system. Such an interconnection fabric has traditionally been applied to symmetrical arrangements of identical nodes. In the cited reference, each node is identical to each other node. It is straightforward to connect each node to the interconnection fabric in the same way. However, for heterogeneous internal functional components of a single storage system, the use of an interconnection fabric is not known in the prior art. Traditional wisdom teaches that different functional components have different interconnect requirements and capabilities. A regular, symmetrical interconnection fabric has not previously been recognized as suitable for or adaptable to internal heterogeneous functional nodes of a storage system. No prior art references have been cited that suggest an interconnection fabric would be applicable to internal heterogeneous functional nodes of a storage system.

Applicant also asserts that numerous ones of the dependent claims recited further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Information Disclosure Statement:

Applicants note that an information disclosure statement with accompanying form PTO-1449 was submitted on October 17, 2002. Applicants request the Examiner to carefully consider the listed references and return a copy of the signed and initialed Form PTO-1449 from this statement.

CONCLUSION

Applicants submit the application is in condition for allowance, and an early notice to that effect is requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above referenced application from becoming abandoned, Applicant hereby petitions for such extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5181-68300/RCK.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

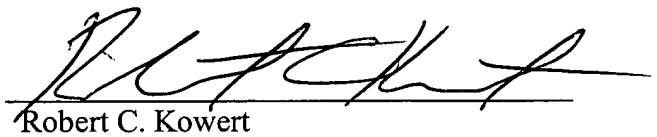
☐ Petition for Extension of Time

☐ Notice of Change of Address

☐ Fee Authorization Form authorizing a deposit account debit in the amount of $ for fees ( ).

☐ Other:

Respectfully submitted,



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